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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,070	08/22/2003	Michael Wayne Graham	546322000303	8796

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EXAMINER	
WHITEMAN, BRIAN A	
ART UNIT	PAPER NUMBER
1635	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,070	GRAHAM ET AL.	
	Examiner	Art Unit	
	Brian Whiteman	1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *48 and 107-145* is/are pending in the application.

4a) Of the above claim(s) *139-145* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *48, 107-138* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/5/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 48 and 107-145 are pending.

Applicant's traversal, the cancellation of claims 49-106 and the addition of claims 107-145 filed on 2/28/07 is acknowledged and considered by the examiner.

Election/Restrictions

Claims 139-145 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/15/04.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 09/100,812 and 09/646,807, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application.

Instant claims 48 and 107-138 do not have written support under 112 first paragraph for "structural gene sequence having greater than 20 consecutive nucleotides which is identical in sequence to greater than 20 consecutive nucleotides of a genus of target gene or region thereof and wherein multiple copies of the nucleotide sequence are arranged in the structural gene region in an interrupted palindrome sequence. The specification of '812 contemplates: "at least about 20-30 nucleotides in length derived from a viral DNA polymerase, viral RNA polymerase, viral coat protein, or visually-detectable gene, more particularly an RNA polymerase gene derived from a virus selected from the list comprising BEV, Sinbis alphavirus, HIV-1, bovine herpes virus and HSV1 or a visually detectable gene which is involved in determining pigmentation, cell death or other external phenotype on a cell, tissue, organ, or organism, amongst others" and "the structural gene component of the synthetic gene comprises at least about 20-30 nucleotides in length derived from the BEV RNA-dependent RNA polymerase gene or the murine tyrosinase gene or the Escherichia coli lac repressor gene lacI or a complementary sequence thereto." See page 10 of '812. Furthermore, the specification of '812 only discloses: "In a more particularly preferred embodiment of the invention, the multiple structural gene comprises an interrupted direct repeat or interrupted palindrome comprising two identical or substantially-identical BEV polymerase structural gene sequences or alternatively, two identical or substantially-identical tyrosinase structural gene sequences or a homologue, analogue or derivative thereof separated by

a stuffer fragment comprising a nucleotide sequence which encodes green-fluorescent protein or a biologically-active analogue or derivative thereof." See page 20.

Instant claims 48 and 107-138: the genus of nucleotide sequences of greater than 20 nucleotides which is identical to the sequence of the target gene or region thereof does not have written support in application '807.

Disclosure of a single species is rarely, if ever, sufficient to describe a broad genus, particularly when the specification fails to describe the features of that genus, even in passing. See, for example, *In re Shokal*, 113 USPQ 283 (CCPA 1957); *Purdue Pharma L.P. v. Faulding Inc.*, 56 USPQ2d 1481 (CAFC 2000). Taking characteristics of an individual embodiment and making that characteristic the basis of a generic claim without further supporting disclosure is not in compliance with the written description requirement. See *Purdue Pharma L.P. v. Faulding Inc.*, 56 USPQ2d 1481, 1487 (CAFC 2000).

Applicant's arguments filed 2/28/07 have been fully considered but they are not found persuasive.

In response to applicant's argument that claim 48 has been amended and provide support for each element of the claim as delineated above, the argument is not found persuasive because applicant refers to support from the instant specification not the specification of '812 and '807

The generic contemplation of the claimed invention is not sufficient to support written description of the claimed invention. See Univ. of Rochester v. G.D. Searle & Co., 358 F.3d 916, 927, 69 USPQ2d 1886, 1894-95 (Fed. Cir. 2004).

Thus, the instant claims do not enjoy priority to parent application '812 filed on 7/19/98

A review of the two Australian Applications to which priority is claimed (PP2492 and PP2499) revealed no support for the limitation "a structural gene region which comprises multiple copies of a nucleotide sequence of greater than 20 consecutive nucleotides which is identical to the sequence of the target gene or region thereof" and "wherein the multiple copies of the nucleotide sequence are arranged in the structural gene region in an interrupted palindrome sequence" as recited in instant claim 48 and claims dependent therefrom. Thus, the instant claims 48 and claims dependent therefrom do not enjoy priority to the foreign applications filed on 3/20/1998.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 3/5/07 was filed after the mailing date of the non-final rejection on 8/28/06. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The exhibits as civil ligation actions have been considered, but the documents cited in the exhibits have not been considered for the reasons set forth in the previous office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 110-119, 121, 123, 125, 127, 129, 131, and 132 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

New matter rejection:

There does not seem to be support for the limitation 'a synthetic genetic construct comprising a synthetic gene and a genetic sequence which provides for the maintenance and/or replication of the genetic construct in prokaryotes or eukaryotes and/or the integration of the genetic construct or a part thereof into the genome of a eukaryotic cell or organism' in claim 110 and claims dependent therefrom. See MPEP § 2163.06. Applicant cites several pages in the specification for support for all the claims, but does not specifically indicate where the limitation in claim 110 has support. The examiner had to search the entire specification for the limitations and could not find support for the limitation.

Claims 48 and 107-138 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 48 and 107-138, as best understood, is readable on a genus of structural gene region which comprises multiple copies of a nucleotide sequence of greater than 20 consecutive

nucleotides which is identical to the sequence of the target gene or region thereof, wherein the genus of structural gene sequences is not claimed in a specific biochemical or molecule structure that could be envisioned by one skilled in the art at the time the invention was made.

The specification contemplates a target gene which is endogenous to an animal cell or a foreign gene such as a viral or foreign genetic sequence (page 7). The disclosure provides sufficient description for the target gene is α-1,3-galactosyltransferase. The specification further provides support for a structural gene component of the synthetic gene comprises derived from the BEV RNA-dependent RNA polymerase gene or the murine tyrosinase gene or the Escherichia coli lac repressor gene lacI. However, the specification does not provide sufficient description of a genus of a structural gene sequence comprises a nucleotide sequence that is identical to the sequence of the target gene or region thereof and is capable of post-transcriptionally delaying, repressing or otherwise reducing the expression of a target gene in a human cell. There is a variation between the species embraced by the claimed genus and function. The specification does not disclose how to make a representative number of species of the claimed genus with the desired biological function. The prior art does not supplement how to make a representative number of species of the claimed genus with the desired biological function. The skilled artisan would understand that not all sequences embraced by the claimed genus can initiate degradation of target gene or region thereof. It is not apparent that on the basis of the applicants' disclosure, an adequate written description of the invention defined by the claims requires more than a mere statement that it is part of the claimed invention and reference to potential methods and/or molecular structures of molecules that are essential for the genus of

structural gene sequences comprises a nucleotide sequence that must exhibit the disclosed biological functions as contemplated by the specification.

It is not sufficient to contemplate a genus of target gene or region thereof to support the present claimed invention directed to a genus of structural gene sequence comprises a nucleotide sequence that is identical to the sequence of the target gene or region thereof. The claimed invention as a whole is not adequately described if the claims require essential or critical elements, which are not adequately described in the specification and which is not conventional in the art as of applicant's effective filing date. Claiming a genus of structural genes that must possess the biological properties as contemplated by applicant's disclosure without defining what means will do so is not in compliance with the written description requirement. Rather, it is an attempt to preempt the future before it has arrived. (See *Fiers v. Revel*, 25 USPQ2d 1601 (CA FC 1993) and *Regents of the Univ. Calif. v. Eli Lilly & Co.*, 43 USPQ2d 1398 (CA FC, 1997)). Possession may be shown by actual reduction to practice, clear depiction of the invention in a detailed drawing, or by describing the invention with sufficient relevant identifying characteristics such that a person skilled in the art would recognize that the inventor had possession of the claimed invention. Pfaff v. Wells Electronics, Inc., 48 USPQ2d 1641, 1646 (1998). The skilled artisan cannot envision the detailed structure of a genus of structural genes that must exhibit the contemplated biological functions, and therefore, conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the structures and/or methods disclosed in the as-filed specification. Thus, in view of the reasons set forth above, one skilled in the art at the time the invention was made would not have recognized that applicant was in possession of the claimed invention as presently claimed.

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive.

In response to applicant's argument that the amendment to claim 48 overcomes the 112 first paragraph rejection because the argument does not address the rejection of record. Thus, the rejection remains for the reasons of record. Also see Parrish et al. (Molecular Cell 6: 1077-1087, 2000), Perkel, The Scientist, pages 1-5, 2006 and Vickers et al., The Journal of Biological Chemistry, 278:7108-7118, 2003.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 108, 109, 112, and 137 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "from greater than" in claims 108, 109, 112, and 137 is a relative term which renders the claim indefinite. The term "from greater than" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification does not define the metes and bounds of the term because the specification does not define if the term indicates that the nucleotide is from 20 nucleotides or greater than 20 nucleotides or greater than 20-100 nucleotides or from 20-100 nucleotides. See Amgen, Inc. v. Chugai Pharmaceutical Co., 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The term "arranged in the structural gene region in an interrupted palindrome sequence" in the limitation recited in instant claims 48, 110, 133, and claims dependent therefrom reads on arranging the copies of nucleotide sequences in sense and antisense orientation in the synthetic gene with nucleotides (e.g., stuffer) between the nucleotide sequences. The instant specification only recites the term and does not specifically define the term. See page 29. The skilled artisan understands the term as described above. See Abdurashitov et al. Nucleic Acids Res. 1997, 25, abstract only. See also MPEP 2173.02, which recites: Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

(A) The content of the particular application disclosure;

(B) The teachings of the prior art; and

(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

Claims 48, 107, 108, 110, 111, 112, 114, 115, 116, 117, 118, 120, 121, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, and 137 are rejected under 35 U.S.C. 102(e) as

being anticipated by Fire et al (US 6,506,559, cited on a PTO-1449). Fire teaches a vector comprising a construct comprising a promoter operably linked to a nucleotide sequence comprising dsRNA comprising a sense strand and an antisense strand of the target gene (columns 4 and 9). The dsRNA may be formed by a single self-complementary RNA strand or two complementary RNA strands (column 7). The construct comprises a regulatory region including polyadenylation (columns 8-9). The nucleotide sequence may be at least 25 or 50 bases (column 8). The vector can be introduced into a cancerous cell, including cancer cells find in humans (column 9-10). A viral vector or lipid mediated carrier transport can be used as the vector (column 9). The cell can comprise a target gene at risk from a pathogen including HIV or can be from several different types of animals (columns 4, 8, and 10). The target gene can be an endogenous from in a human cell (columns 4 and 10-11). The construct can comprise a structural gene with an intron. In addition, the structural gene can comprise a 5' or 3' untranslated region (column 20). The structural gene can comprise one or more strands of the nucleotide sequence (column 4).

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive.

In response to applicant's argument that Fire does not teach a synthetic gene, the argument is not found persuasive because the structural limitations recited in the instant claims are taught by Fire.

In response to applicant's argument that Fire does not teach multiple copies of a nucleotide sequence, the argument is not found persuasive because Fire teaches that the

structural gene comprising nucleotide sequence can comprise one or more strands, which would read on multiple copies of the nucleotide sequences.

In response to applicant's argument that Fire does not teach a minimum length of 20 nucleotides, the argument is not found persuasive because the claims are not limited to less than 25 nucleotides as taught by Fire. The claim recites greater than 20 nucleotides which reads on nucleotides of 25 nucleotides or more.

In response to applicant's argument that Fire does not teach arranging the nucleotide sequence in an interrupted palindrome sequence, the argument is not found persuasive because as mentioned above, the arrangement reads on placing the nucleotide sequences in antisense and sense orientation.

In response to applicant's argument that Fire does not teach a nucleotide sequence under control of one promoter, the argument is not found persuasive because, as stated in the rejection, Fire teaches using either a T7 or T3 promote indicating that one promoter is being used.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 110, 117, 119, and 122-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fire taken with Dietz (US 5,814,500). Fire teaches a vector comprising a construct comprising a promoter operably linked to a nucleotide sequence comprising dsRNA comprising a sense strand and an antisense strand of the target gene (columns 4 and 9). The dsRNA may be formed by a single self-complementary RNA strand or two complementary RNA strands (column 7). The construct comprises a regulatory region including polyadenylation (columns 8-9). The nucleotide sequence may be at least 25 or 50 bases (column 8). The vector can be introduced into a cancerous cell, including cancer cells find in humans (column 9-10). A viral vector or lipid mediated carrier transport can be used as the vector (column 9). The cell can comprise a target gene at risk from a pathogen including HIV or can be from several different types of animals (columns 4, 8, and 10). The target gene can be an endogenous from in a human cell (columns 4 and 10-11). The construct can comprise a structural gene with an intron. In

addition, the structural gene can comprise a 5' or 3' untranslated region (column 20). The structural gene can comprise one or more strands of the nucleotide sequence (column 4). However, Fire does not specifically teach a retroviral vector comprising the dsRNA construct.

However, at the time the invention was made, Dietz teaches making a retroviral vector for expressing inhibiting RNA (column 8). Dietz further teaches using a SV40 early, RSV or CMV promoter to express the RNA (column 6).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fire taken with Dietz, namely to produce a retroviral vector comprising the dsRNA construct. One of ordinary skill in the art would have been motivated to combine the teaching for integration of the dsRNA into the genome of an animal cell.

In addition, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fire taken with Dietz, namely to produce a dsRNA construct comprising a CMV, SV40 early, or RSV promoter. One of ordinary skill in the art would have been motivated to combine the teaching to sufficiently express the dsRNA in animal cells.

In view of Fire and Dietz, one of ordinary skill in the art would have had a reasonable expectation of success for producing the product

Therefore the invention as a whole would have been *prima facie* obvious to one ordinary skill in the art at the time the invention was made.

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive for the reasons set forth in the response to applicant's arguments under the 102 rejection.

Claims 48, 107, 109, 110, 111, 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fire et al (US 6,506,559, cited on a PTO-1449) taken with Ladner et al (US 5,198,346). Fire teaches a vector comprising a construct comprising a promoter operably linked to a nucleotide sequence comprising a sense strand and an antisense strand of the target gene (columns 4 and 9). A viral vector can be used as the vector (column 9). However, Fire does not specifically teach separating a construct comprising the structural gene sequences with a stuffer sequence.

However, at the time the invention was made, Lander teaches using a stuffer fragment having above about 10 nucleotides to introduce a stop codon or a unique restriction site (column and Table 704).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fire taken with Ladner, namely to produce a construct comprising a structural gene with a stuffer sequence having above about 10 nucleotides. One of ordinary skill in the art would have been motivated to combine the teaching to introduce a termination site after the sense strand or a unique restriction sequence for cloning purposes.

In view of Fire and, one of ordinary skill in the art would have had a reasonable expectation of success for producing the product

Therefore the invention as a whole would have been *prima facie* obvious to one ordinary skill in the art at the time the invention was made.

Applicant's arguments filed 2/28/07 have been fully considered but they are not persuasive for the reasons set forth in the response to applicant's arguments under the 102 rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). This is the case here. The totality of the prior art of record teaches using a nucleotide sequence to separate a nucleotide sequence in a vector for cloning purposes or isolating a nucleotide sequence.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Whiteman whose telephone number is (571) 272-0764. The examiner can normally be reached on Monday through Friday from 6:30 to 4:00 (Eastern Standard Time), with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Douglas Schultz, SPE – Art Unit 1635, can be reached at (571) 272-0763.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Fax Center number is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Brian Whiteman